



National Aeronautics and Space Administration
Goddard Space Flight Center

Wallops Flight Facility, Wallops Island, Virginia

Inside Wallops

Volume XIX-99

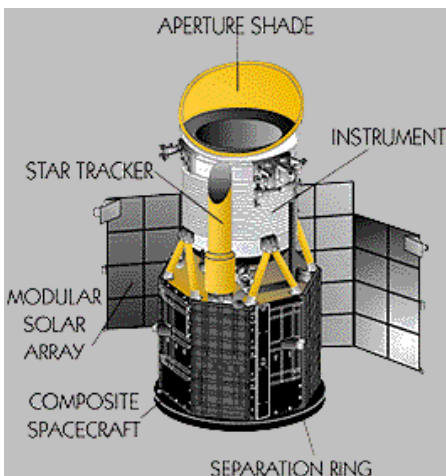
Number 10

March 15, 1999

Wire Science Instrument Runs Out Of Hydrogen

Ground controllers are slowly gaining control of NASA's Wide-Field Infrared Explorer (WIRE), but the entire supply of frozen hydrogen needed to cool its primary scientific instrument has been released into space, ending the scientific mission of the spacecraft.

"We are very disappointed at the loss of WIRE's science program," said Dr. Ed Weiler, Associate Administrator for Space Science at NASA Headquarters. "We are establishing a formal anomaly investigation board to find out what happened, which will help us to plan future missions. I'm confident that many of the scientific goals can be accomplished by upcoming missions such as the Space Infrared Telescope Facility, so it will be science delayed rather than science lost."



Spacecraft controllers believe the primary telescope cover was released about three days earlier than planned. As a result, sunlight began to fall on the instrument's cryostat, a container of frozen hydrogen designed to cool the instrument. The hydrogen then warmed up and vented into space at a much higher rate than it was designed to do causing the spacecraft to spin. Controllers do not know what specifically caused the cover to be released.

WIRE's primary instrument is a 30-centimeter aperture (12.5-inch) Cassegrain telescope enclosed inside a solid hydrogen cryostat. The cryostat was designed to cool the telescope's inner workings to minus-430 degrees F — cold enough so that the telescope's own heat emissions would not mask the infrared light that it is trying to detect in space.

By early Saturday, March 6, the spacecraft's rate of spin had stabilized at about 60 revolutions per minute, giving controllers hope they could start

the painstaking process of regaining control of the 563-pound spacecraft. Ground controllers developed and uploaded a new computer program to WIRE that began imparting small, countering forces using the satellite's onboard magnetic attitude control system to gently slow the spacecraft's spin.

Controllers have been successfully using this approach to slowly regain control of the spacecraft and reduce the spin rate approximately 3 degrees per second per orbit.

WIRE is now rotating about 250 degrees per second. The objective is to reduce the spin rate sufficiently that the onboard system will take over and provide full attitude control.

WIRE was launched March 4 at 9:57 p.m. EST from Vandenberg Air Force Base, CA.

When the spacecraft made its second pass over one of the WIRE tracking stations, ground controllers determined that WIRE was spinning instead of maintaining a stable position in orbit, and temperatures for the cryostat and the instrument were warmer than expected.

After the anomaly investigation board completes its work with WIRE, engineers plan to use the spacecraft as an engineering testbed to evaluate advanced attitude control systems, communications, and data handling and operations.

Daniel C. Tam Appointed Special Assistant For Commercialization

NASA Administrator Daniel S. Goldin has appointed Daniel C. Tam to be Assistant to the Administrator for Commercialization. Tam will be a NASA Headquarters employee based at NASA's Jet Propulsion Laboratory.

In his new position, Tam will be charged with aggressively seeking opportunities to increase commercialization of NASA infrastructure, operations and technology. He also will be reaching out to the broader public sectors, including industry, academia and other government organizations, to accelerate the deployment of NASA-developed technologies in the U.S. economy beyond the aerospace sector.

Tam most recently has been the Director of Planning and Investments for TRW's Space and Electronics Group.

Wallops Shorts.....

Wallops P-3B Supports GTE

NASA Wallops' P-3B aircraft departed March 10, 1999 on the Global Tropospheric Experiment (GTE) Pacific Exploratory Mission (PEM-Tropics B). This is the most recent mission in the ongoing series to study human-induced changes in the chemistry of the Earth's troposphere.

The Wallops P-3B aircraft and a DC-8 aircraft from Ames Research Center carry instruments into the troposphere in regions where either natural processes and/or human activities are believed to have particularly significant effects on tropospheric chemistry or regions that are relatively unaffected by human activities. Satellite observations of meteorology, land use, and atmospheric chemical species also aid in experiment design and in the scientific analyses of results obtained from the aircraft and ground-based measurements.

The PEM-Tropics B mission will take place in the South Pacific during March and April 1999 to study the tropical Pacific atmosphere during a season when the effects of biomass burning should be less than during the PEM-Tropics A experiment which took place from August to December 1996. Scientists hope to improve their understanding of the oxidizing power of the atmosphere and the processes of controlling sulfur aerosol formation.

NASA Wallops personnel Doug Young, Range and Mission Management Office, and George Postell, Aircraft Office, are supporting the project as well as the following DynCorp employees: Chris Grew, Mike Singer, Audie Wilson, John Schnabel, James Darnell, John Doyle and Jerry Martin.

Project Team Departs

A project team departed March 10 for White Sands Missile Range, N.M. to support the launch of a Nike-Black Brant sounding rocket.

Recreational Use of Wallops Island

Effective March 15, the south and north ends of Wallops Island are closed to pedestrian and vehicular use. These areas will reopen Sept. 15. The closures are part of a continuing cooperation with the U.S. Fish and Wildlife service to protect the piping plover, a federally threatened species along the Atlantic Coast. The only area open for recreational use is the area north of the launch areas and south of the beach cable barrier. For further information contact Bill Phillips, x1209.

**Federal Women's Program
Hosts Girl Scouts**

Wallops Federal Women's Program Manager, Pat Pruitt, conducted a workshop on March 2, 1999 for 16 girls and 5 leaders from Girl Scout Troop #1446, Horntown, VA. The Women's History Month presentation and Internet demonstration was held in the Management Education Center's computer lab.



Pruitt explained the importance of understanding and celebrating women's history. She emphasized the need to appreciate who has come before us, accept or reject past practices, and become aware of all available options. Past and current role models were discussed, giving the Scouts reassurance that they, too, can excel in whatever career feel they should choose. Following a discussion, Pruitt explained how the Internet works in terms the Scouts could understand and directed a hands-on demonstration.

Pruitt provided a package of information that included her presentation, a handout on Women at NASA and a Women's History Month bookmark. The Scouts also received a bookmark on the various educational and fun web sites they visited during the workshop, which included the NASA Greenbelt and Wallops homepages and the National Oceanic and Atmospheric Administration site. The Wallops Public Affairs Office furnished NASA souvenir bags that included relevant information.



**Easter Egg Hunt
March 27
10 a.m.
Bldg. F-3**

Hot dogs, sodas, videos and prizes. Open to WEMA members. Children must be supervised, no drop-offs, please. Contact Bev Hall, x1714 or Gerry McIntire, x1889. Sponsored by Morale Activities Committee. Rain date is April 3.

Women's History Month

As recently as the 1970's, women's history was virtually an unknown topic in the K-12 curriculum or in general public consciousness. To address this situation, the Education Task Force of the Sonoma County (California) Commission on the Status of Women initiated a "Women's History Week" celebration for 1978. The week of March 8 was chosen to make International Women's Day the focal point of the observance.

In 1981, Sen. Orrin Hatch (R-UT) and Rep. Barbara Mikulski (D-MD) co-sponsored a Joint Congressional Resolution declaring a "National Women's History Week".

As word spread across the nation, state departments of education encouraged celebrations of National Women's History Week as an effective means to achieving equity goals within classrooms. Within a few years, thousands of schools and communities were celebrating National Women's History Week, supported and encouraged by resolutions from governors, city councils, school boards and the U.S. Congress.

In 1987, the National Women's History Project petitioned Congress to expand the national celebration to the entire month of March. Since then, the National Women's History Month Resolution has been approved with bipartisan support in both the House and Senate. Each year, programs and activities in schools, workplaces, and communities have become more extensive as information and program ideas have been developed and shared.

The popularity of women's history celebrations has sparked a new interest in uncovering women's forgotten heritage.

**Women's History Month
Luncheon March 18
11:30 a.m. - 1 p.m.
Williamsburg Room
Bldg. E-2
Guest Speaker - James McCallops**

**Monthly Morning Coffee
with Wallops Senior
Management
March 17**
8 to 8:30 a.m. - coffee
8:30 to 9 a.m. - question and answer session

**St. Paddy's Party
5 p.m. March 17
Bldg. F-3**

Green beer and Irish food.
Entertainment

• • • • •
The Leprechaun is an Irish fairy. He looks like a small, old man (about 2 feet tall), often dressed like a shoemaker, with a cocked hat and a leather apron.



According to legend, leprechauns are aloof and unfriendly, live alone, and pass the time making shoes. They also possess a hidden pot of gold.

Treasure hunters can often track down a leprechaun by the sound of his shoemaker's hammer. If caught, he can be forced (with the threat of bodily violence) to reveal the whereabouts of his treasure, but the captor must keep their eyes on him every second. If the captor's eyes leave the leprechaun (and he often tricks them into looking away), he vanishes and all hopes of finding the treasure are lost.

**CAREER MANAGEMENT
Around the Table: A Workshop
for Women**

DATE: April 7-8, 1999
TIME: 8 a.m. to 4:30 p.m.
LOCATION: The Chincoteague Center
FUND SOURCE: Center

A Training Request is required. Code 800 Training Requests should be routed through Sherry Kleckner, Bldg. F-6. All Training Requests must reach Laura Potler, Code 114 no later than March 18. Training Requests with appropriate signatures may be faxed to x66-1679. Questions about classes should be directed to Laura Potler, x66-4853.

Non-NASA Federal employees may register by submitting a Training Request and a prepared Purchase Request form to Laura Potler. Contractor are admitted on a "space available" basis and may register by sending a memo to Potler at Code 114.

Inside Wallops is an official publication of Goddard Space Flight Center and is published by the Wallops Office of Public Affairs, Extension 1584, in the interest of Wallops employees.

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Printing

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Printing Management Office